

**SERIOUS INCIDENT**

<b>Aircraft Type and Registration:</b>	1) DHC-8-402, Dash 8, G-JECL 2) Boeing 737-5H6, G-PJPJ
<b>No &amp; Type of Engines:</b>	1) 2 Pratt & Whitney Canada PW150A turboprop engines 2) 2 CFM56-3C1 turbofan engines
<b>Year of Manufacture:</b>	1) 2005 2) 1994
<b>Date &amp; Time (UTC):</b>	30 October 2009 at 1900 hrs
<b>Location:</b>	Exeter Airport, Devon
<b>Type of Flight:</b>	1) Commercial Air Transport (Passenger) 2) Commercial Air Transport (Passenger)
<b>Persons on Board:</b>	1) Crew - 4                      Passengers - 58 2) Crew - 2                      Passengers - 0
<b>Injuries:</b>	1) Crew - None                  Passengers - None 2) Crew - None                  Passengers - None
<b>Nature of Damage:</b>	1) None 2) None
<b>Commander's Licence:</b>	1) Airline Transport Pilot's Licence 2) Airline Transport Pilot's Licence
<b>Commander's Age:</b>	1) 30 years 2) n/k years
<b>Commander's Flying Experience:</b>	1) 6,259 hours (of which 639 were on type) Last 90 days - 143 hours Last 28 days - 50 hours  2) n/k hours (of which n/k were on type) Last 90 days - n/k hours Last 28 days - n/k hours
<b>Information Source:</b>	AAIB Field Investigation

**Synopsis**

G-JECL was scheduled to operate from Exeter Airport, Devon, to Edinburgh Airport, Midlothian. After an uneventful pushback and start, taxi clearance was received from ATC to Holding Point Alpha One for Runway 08. This was read back correctly. The crew

subsequently crossed Alpha One and lined up on Runway 08; as they did so, a Boeing 737 landed on Runway 26.

## History of the flight

The crew of G-JECL were rostered to operate five sectors: Exeter to Jersey, Jersey to Guernsey, Guernsey to Exeter, Exeter to Edinburgh and return; the incident occurred on the fourth sector.

The first sector departed on time, however all subsequent sectors departed at least 15 minutes late. All the sectors, apart from the first, were conducted in the dark. At the time of the incident the visibility was 7,000 m and the surface wind was from 150° at 9 kt.

The fourth sector commenced with an uneventful pushback and start. Taxi clearance was received from ATC to Holding Point Alpha One for Runway 08. This was read back correctly. During the pushback an empty Boeing 737 (G-PJPJ) came onto the Tower frequency when it was at 8 nm finals and was cleared to land on Runway 26. There were no further transmissions to, or from, the B737 and there was no other traffic on frequency. During the B737's final approach the Tower controller's attention was focussed towards the threshold of Runway 26, watching the B737's landing

At the start of the taxi phase the commander of G-JECL, who was taxiing the aircraft, requested the co-pilot to complete the Taxi Checks, which he did. During this time, however, the co-pilot was predominately "heads in". When the co-pilot challenged the commander with the last item on the Taxi checklist, 'CLEARANCES' (ATC departure clearance), the commander responded "to come". The commander then instructed the co-pilot to continue with the next checklist, the Line Up checklist. At this point the commander commented on their previous departure from Exeter, for which they had to wait "a long period of time" on the runway for their departure clearance, having already been given

line-up clearance by ATC. The commander later commented that he had, by mistake, reverted to the previous clearance.

As G-JECL approached the entry point for Runway 08 the co-pilot commented, to the commander, on some moving lights on the runway. The commander said that he believed it was a car. Disagreeing, the co-pilot said it looked like an aircraft. It was at this point the commander realised that they had only been cleared to Holding Point Alpha One. Having turned to monitor the B737's landing roll, and to anticipate where it might vacate the runway, the Tower controller saw the lights of G-JECL moving on the runway. At that moment he asked G-JECL "CONFIRM YOU'VE LINED UP" to which the commander replied "AFFIRM". The controller replied "YOUR CLEARANCE WAS TO ALPHA ONE THERE'S TRAFFIC JUST LANDED ON 26 THRESHOLD." The B737's crew only noticed G-JECL was on the runway when their aircraft's speed was approaching taxi speed, shortly before they vacated Runway 26 at Intersection Bravo.

When the Boeing 737 had cleared the runway, G-JECL received its clearance and departed.

The commander notified the operator's operations department of the incident after the fifth sector and filed an Air Safety Report electronically the following day.

## CAP 168, Licensing of Aerodromes

Chapter 6 of CAP 168 states the following:

### *6.3 Stop-Bars*

*6.3.1 Stop-bars are intended to help protect the runway against inadvertent incursions. A stop-bar consists of a single row of flush or semi-flush inset lights installed laterally across*

*a taxiway showing red towards the intended direction of approach.*

*6.3.2 Stop-bars should be provided at all Runway Taxi-Holding Positions and Intermediate Taxi-Holding Positions intended for use in RVR conditions less than 800 m, unless procedures have been agreed with the CAA to limit the number of aircraft either on the manoeuvring area or on final approach within 5 nm to one at any given time.'*

Exeter Airport does not have red stop bars and, as it complies with 6.3.2, they are not required. There are flashing ('wig wag') amber lights at Holding Point Alpha Two.

#### **Additional information**

The commander was based in Guernsey, Channel Islands and the co-pilot had recently been relocated to Exeter from Manchester.

Examination of the ATC tapes showed that G-JECL waited on the runway, prior to departure on the first sector, for 3 min 20 sec before its clearance was issued.

#### **Operations manual**

Part A, Section 11, paragraph 11.1.11 of the operator's operations manual states the following:

*'A serious incident means an incident involving circumstances indicating that an accident nearly occurred.'*

The commander stated that at the time he did not realise this incident would be categorised as a serious incident. Hence he operated the sectors to Edinburgh and back.

#### **Crew's comments**

Both the commander and co-pilot stated that while they had both had a broken night's sleep the night before, they both felt fit to report for duty.

The commander was Guernsey based and mainly operated at airports with red stop bars at runway holding points. He stated that he expected to see a red stop bar at all relevant holding points and had he seen one he would not have crossed it. He added that he was trying to get the flight back onto schedule. The operator commented that at this point the aircraft was some 15 minutes behind schedule.

This was the first time that the co-pilot had operated from Exeter at night, with a commander who was not based there.

#### **Flight recorders**

The Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR) from G-JECL were downloaded. Whilst the 25 hour FDR recording covered the incident period, the 2 hour CVR recording did not as the CVR was left running for the two sectors flown after the event. The 737 operator provided data gathered for its Flight Data Monitoring programme. The ATC recordings provided the relevant radio communications and enabled the data from the aircraft to be aligned.

The relevant radio communications are given in the history of the flight. The relative aircraft positions during the incident are shown in Figure 1. G-JECL proceeded along Taxiway Alpha without stopping at Holding Point Alpha One and while taxiing along Taxiway Alpha, the crew would have not had the landing B737 in their view. The B737 touched down shortly after G-JECL passed Holding Point Alpha One. As the B737 decelerated through a ground speed of



**Figure 1**

G-JECL track and G-PJPJ positional information  
(Google Earth™ mapping service/Infoterra Ltd & Bluesky)

50 kt, G-JECL started turning onto the runway. The B737 vacated the runway via Taxiway Bravo.

#### Comment

The crew did not realise that Runway 26 was in use, as they did not register the B737's landing clearance while they were concentrating on their pushback. Had they heard the landing clearance they may have been alerted that Runway 26 was in use at the time.

The crew of G-JECL taxied onto Runway 08 contrary to their ATC clearance. Both crew members were likely to have been tired after a broken night's sleep and a busy day trying to regain the schedule. The co-pilot was not adequately monitoring the commander, who was unfamiliar with this airport, while he completed the Taxi checklist. Additionally, as the crew had been discussing their first sector at the time of the incident, it is likely to have conditioned them to expect the same clearance from ATC on this sector. The commander

also asked for the Line Up check list despite the Taxi checklist not being completed. All of these factors led the crew to become distracted enough to cross Alpha One and line up on Runway 08 contrary to their ATC clearance.

The crew operated two sectors after the incident, contrary to the operations manual and, as a result, the incident portion of the CVR was overwritten. The operator's Operations Manual states, in 'Part A Section 11.2, Accident Reporting':

*'Following an accident or incident in which it is necessary to contact the Chief Inspector of Accidents, the crew are immediately grounded. No allocation of blame is attached to this automatic procedure which can only be lifted by the Chief Pilot, or in his absence the Fleet General Manager.'*

**Safety actions**

The operator of G-JECL stated that it will publish a report on this incident in its flight safety magazine, highlighting the salient points. Additionally, the Dash 8 Fleet Manager for this operator would be examining the

remote bases culture and operating standards, including the importance of normal checklist procedures on all occasions, by arranging a series of base visits to reaffirm the company safety culture.